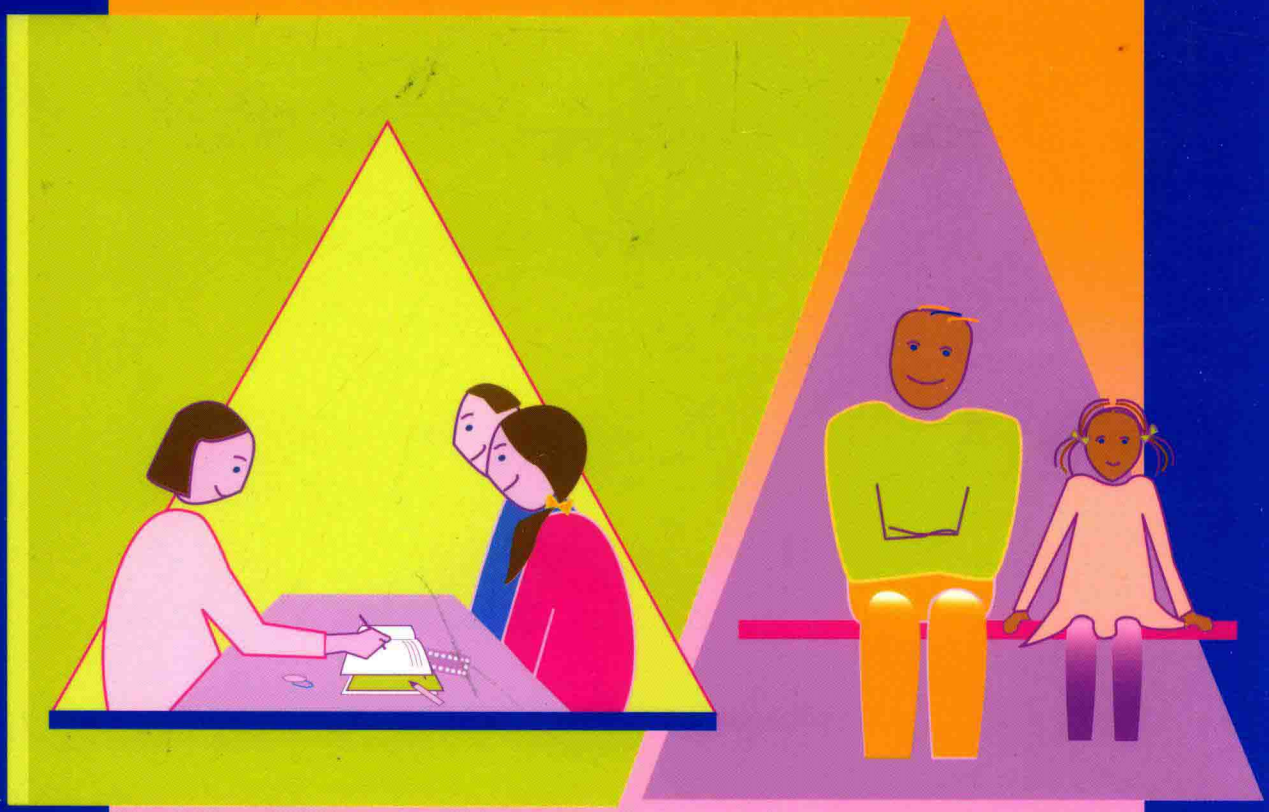
UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction

Research on Reproductive Health at WHO

Biennial Report



2000—2001

Department of Reproductive Health and Research
Family and Community Health
World Health Organization, Geneva

UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction

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Preface

Sexual and reproductive health is at the core of people's lives and well-being. The ability to develop in a supportive environment and grow into a sexually responsive and responsible adult, the ability to enjoy one's sexuality without harming or infecting oneself or one's partner, and the ability to have children by choice and not by chance are among the unique attributes that define us as human. A strong focus on sexual and reproductive health is justified not only on the grounds of human rights, equity, and social justice. There are strong public health arguments, too, since reproductive ill-health contributes in such large measure to the global burden of disease and since we have at our disposal cost-effective ways of preventing, or at least managing, much of this ill-health.

Thirty years ago, when our programme was established, the global international health and development agenda was dominated by unwanted fertility and the impact of rapid population growth on development. Today, the nature of the discourse has changed. Today, the focus is on poverty, demographic and epidemiological transitions, and the impact of HIV/AIDS on development. Clearly, this evolution reflects changing realities. But it also reflects the fact that our common efforts have been remarkably successful in providing people with the information and services they need to manage their fertility. Over the last three decades, contraceptive prevalence has risen dramatically (more than sixfold in developing countries) and fertility has fallen in almost every corner of the world. I believe few people question the key role our programme has played in this achievement. Obviously, there remain unanswered questions and there remain areas of the world untouched by this achievement. We are committed to completing the job.

While in fertility regulation much of the basics are in place, in other aspects of sexual and reproductive health our knowledge base remains inadequate. This is true of maternal health and of adolescent sexual and reproductive health, and even more so of HIV/AIDS. I strongly believe that our programme is, among international research organizations, one of the best placed to extend the boundaries of knowledge in these areas. It is

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eminently equipped to apply the knowledge and experience that we have accumulated in our work on fertility to these other still relatively uncharted areas of sexual and reproductive health. HIV/AIDS in particular is an area where our programme can justifiably claim a comparative advantage, since many of the interventions needed to prevent the spread of this epidemic can only be delivered through sexual and reproductive health services, including family planning.

Much of our programme's comparative advantage springs from the global research network that it has build up over the 30 years of its existence. Today, that network harnesses the resources of more than 120 research institutions in nearly a third of the world's countries and more than half of its developing countries. Thanks to this network, we can provide data on human reproduction that are pertinent to people living in the most diverse circumstances and cultures.

This report contains numerous examples of studies completed during the 2000–2001 biennium that could not have been carried out and may not have had such an impact had they not involved such a vast network.

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Our programme's social science studies offer perhaps the most direct example of the need for a multicultural approach in seeking answers to questions concerning reproductive health and sexuality. Increasingly, our epidemiological and clinical work is conducted in parallel with investigations of the behavioural and social underpinnings of sexual and reproductive behaviour and reproductive ill-health. One example is an analysis of Demographic and Health Survey data on contraceptive use among 20 000 women in 16 developing countries, described on page 10: an interesting finding of the analysis was that well over half the married couples in the study abandoned the use of condoms within a year of adopting the method. Our programme is also investing heavily in a large number of social science studies probing the "mysteries" of adolescent sexual and reproductive behaviour in a wide variety of cultural contexts (pages 43–46).

Since its inception, our programme has been heavily committed to strengthening the evidence-base for reproductive health practices, a commitment aimed at dispelling or confirming doubts about the safety or claims about the efficacy of family planning methods and other reproductive technologies. Studies, for exam-

ple, completed during the biennium on the safety of implantable contraceptives, and involving more than 15 000 women in eight developing countries, have confirmed that the levonorgestrel-releasing implantable contraceptive, Norplant, is highly effective and safe (pages 11–12). Other studies (pages 14–15), on the safety of IUDs, show the copper-bearing device TCu-380A to be just as safe, but almost twice as effective, as more expensive "rival" devices.

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Emergency contraception is another area where our programme has played a pioneering, catalytic role over the past two decades. Research we have funded, again spanning vast areas of the globe, has been instrumental in confirming the effectiveness of levonorgestrel and in making it easier and safer to use—today, women in more than 80 countries (page 19) are using it as a "second chance" contraceptive option following unprotected intercourse.

Practical results have also emerged during the biennium from research on ways of making pregnancy safer. In the so-called Magpie trial—probably the largest clinical study of its kind, involving 10 000 women attending 175 hospitals in 33 countries—a natural, inexpensive chemical, magnesium sulfate, was found to halve the risk of convulsions in women with pre-eclampsia (page 27).

Part of our programme's efforts to make pregnancy safer is its work on distilling and disseminating the best available evidence on the best health care practices in pregnancy and childbirth. An example is our virtual WHO Reproductive Health Library, described on page 29, which is increasingly appreciated as one of the most useful sources of information for practitioners of public health care.

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Not all the results presented in this report are reassuring. The findings, for example, of a study conducted, with some support from our programme, by the International Agency for Research on Cancer, suggest that long-term use of oral contraceptives may well double or even triple the risk of cervical cancer in women with human papillomavirus infection. The data were reviewed at a March 2002 meeting of experts, who concluded that, from a risk–benefit perspective, the findings do not warrant changes in oral contraceptive use at the present time (page 34).

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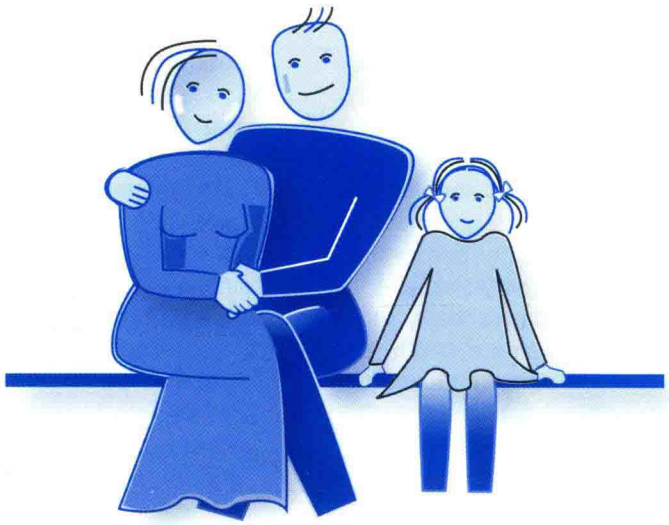
Our programme has also been engaged in wide-ranging, long-term efforts to find the least expensive, most convenient, but highly effective drug regimen for non-surgical abortion. Eight studies are still under way in more than 6000 women in 20 countries, but already a low-dose regimen of mifepristone plus a prostaglandin appears to be just as effective as the higher doses originally proposed for medically induced abortion (page 39).

All in all, the biennium has produced a wealth of usable results that are having an impact on policy and practice. The work reported here clearly vindicates, I believe, our confidence in carefully planned, well-designed collaborative research as a means of expanding and refining the knowledge needed for the best reproductive health care. It also strengthens our conviction that we can have a positive impact on areas of reproductive health where new knowledge is needed—and needed urgently.

It should therefore come as no surprise to readers that the Commission on Macroeconomics and Health specifically mentioned our programme as one of the groups that should benefit from the US$ 1.5 billion annual increase in research and development funding. "Investments in reproductive health, including family planning and access to contraceptives," the Commission reasoned, "are crucial accompaniments to investments in disease control" in the global fight against poverty.

Paul F.A. Van Look, MD, PhD, FRCOG
Director



Chapter 1
Family planning—expanding the choices

Today, more than half of the world's one billion couples of reproductive age use some form of contraception and so are able to choose how many children they will have and when. In developing countries, about 55% of couples use contraceptives, compared to only 9% nearly fifty years ago. Much of the increase reflects a greater availability of reliable contraceptive methods. It also reflects continuing efforts by the international reproductive health community to promote the use of those methods. Since its inception in 1972, the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP), a member of that community, has stimulated and funded research aimed at expanding the choice of contraceptive methods available to couples. By generating, collating and disseminating the evidence produced by this research, HRP has built up a knowledge base such that this choice need no longer be based on intuition, hearsay, faith or dogma, but rather on scientifically sound information.

Yet, there are still many unanswered questions. For one thing, no method is perfect, either in itself or in the way it is used. Indeed, worldwide, somewhere between 6 million and 27 million unintended pregnancies occur annually among people practising contraception. For another, many couples—an estimated 120–150 million, mainly in developing countries—do not use contraceptives despite an apparent need for some form of family planning and an apparent lack of obstacles to acquiring it.

Certainly, most existing methods have or are perceived to have shortcomings that limit their acceptability and constrain couples' choices. Surveys indicate that some 300 million couples are dissatisfied with the methods they use. Moreover, although sexual intercourse, pregnancy and birth are central to human life everywhere, the sociocultural settings in which these events are played out are so diverse that family planning methods and products cannot be equally acceptable everywhere.

Clearly, there is a need to expand the array of products from which couples can make their choices and to do so through a greater understanding of how people, in a wide range of settings, make those choices. There is also a need to dispel, or confirm, fears and doubts about the safety and effectiveness of existing methods.

In short, there is a need for continuing research to devise products and methods that are even safer, more effective, and more widely acceptable than those currently available. This chapter describes research activities, backed by HRP, that address these needs and that have been conducted, reported or planned during the 2000–2001 biennium.

As the end-users see it

Tailoring reproductive health services and products to people's needs and expectations calls for information about how people perceive and use these services and products, including the reasons why people favour

one family planning method over another, or stop using one method and switch to another. HRP has devoted considerable resources to social science projects that seek answers to these questions in developing countries, where more than 80% of the world's couples of reproductive age live.

Contraceptive methods—selecting, staying, stopping, switching

One such project is a study conducted in 2000, in which HRP collaborated with the London School of Hygiene and Tropical Medicine to investigate contraceptive use among over 20 000 women in 16 developing countries—Bangladesh, Bolivia, Brazil, Colombia, Dominican Republic, Egypt, Guatemala, Kenya, Indonesia, Morocco, Nicaragua, Paraguay, Peru, Philippines, Turkey, and Zimbabwe. The women had been interviewed in the 1990s in the course of a Demographic and Health Survey (DHS). The 16 countries have a total population of 853 million and about 80 million contraceptive users. The study found that over a third of users had abandoned whatever method they had been using within 12 months of starting it.

Topping the list of discontinued methods in the 16 countries were diaphragms, foams, and jellies (abandoned by 67% of users in the first year of use), condoms (58%), the withdrawal method (46%), and periodic abstinence (42%). Also relatively high on the list were the pill (39%) and injectable contraceptives (32%). Among methods least likely to have been dropped during the first year of use were Norplant (discontinued by only 3.3% of users) and intrauterine devices (IUDs) (13%) (Figure 1.1).

Couples who abandoned their chosen method did so for a variety of reasons, the study found—the desire to have a child, inconvenience of use, the husband's objections, expense, difficulty in obtaining the contraceptive, and, particularly in the case of condoms, failure of the method.

The DHS data also served to compare how married couples use condoms with how they use the pill. Although condoms are more popular in developed than in developing countries, in some countries with high HIV prevalence rates condoms are being increasingly promoted as part of an effort to stem HIV transmission, even among couples in a stable relationship. The study showed that married couples using condoms were more likely to abandon the method during the first year of use than those using the pill (58% of condom-using couples did so vs 46% of pill users). They were also more likely than pill users to do so because of dissatisfaction with the method (46% vs 35%) and to experience higher failure rates than pill users (9% vs 6%). Moreover, when the chosen method failed, condom users were more likely than users of the pill to resort to abortion (21% of condom users did so vs 14% of pill users) or to switch to another method (76% vs 58%), and less likely to have an unwanted or mistimed pregnancy (10% vs 17%).

The relative infrequency of condom use, particularly among married couples, and the fact that condoms were abandoned within a year by well over half of the married couples in the study, argue in favour of a dual contraceptive approach, such as a condom plus the pill or an injectable contraceptive, but there is little evidence that such a strategy would be feasible or acceptable in developing countries even where HIV infection is prevalent.

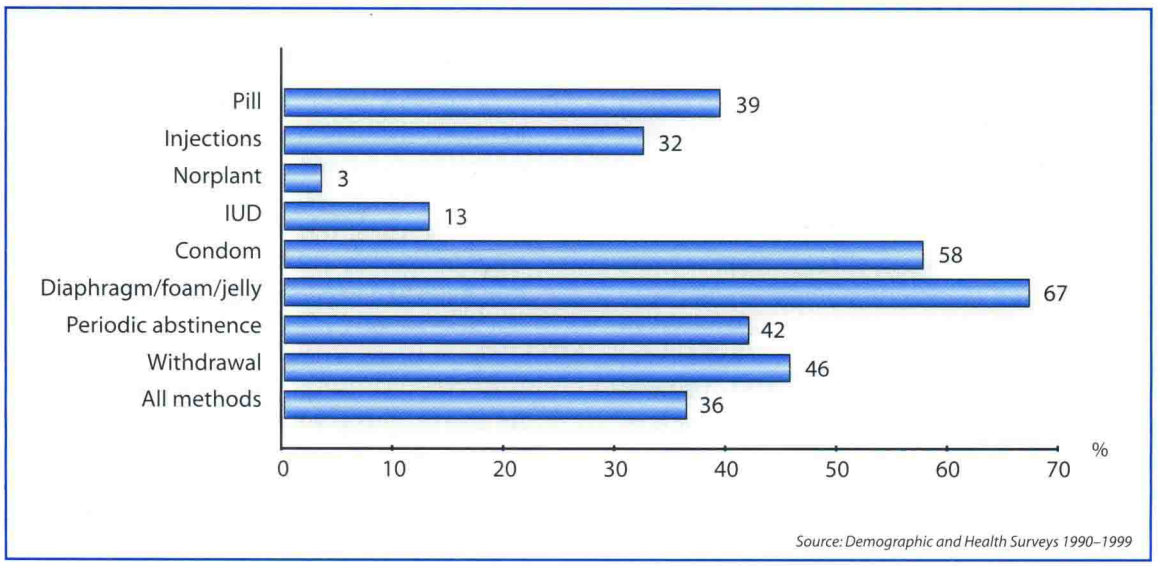


Figure 1.1. Percentages of women discontinuing use of contraceptive methods within one year of starting